

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1. (currently amended) A device for connecting a longitudinal carrier to a bone fixation means, the device comprising:

a connection element having a central axis, an external surface, an upper end, a lower end, a cavity extending coaxially along the central axis from the upper end to the lower end, the cavity having a reduced diameter portion at the lower end forming at least one shoulder therein, and a channel passing through the connection element transversely to the central axis for receiving the longitudinal carrier;

a sealing cap having a front end, a rear end, a second cavity opening at the front end for receiving the connection element, and a second channel extending transversely to the central axis and opening towards the front end of the sealing cap; and

tensioning means for engaging the rear end of the sealing cap for securing the position of the longitudinal carrier inserted in the channel with respect to the connection element; wherein:

the external surface of the connection element and the internal surface of the second cavity formed in the sealing cap contains complementary arresting means for securing the sealing cap to the connection element, and

wherein the device further includes securing means so that to prevent the bone fixation means is prevented from passing through the cavity prior to attachment of the sealing cap to the connection element.

2. (original) The device according to claim 1, wherein the arresting means are arranged orthogonal to the central axis on the periphery of the connection element and on the periphery of the second cavity in the sealing cap.

3. (original) The device according to claim 2, wherein the arresting means includes a plurality of bulges formed on the external surface of the connection element and a plurality of complementary depressions formed in the second cavity of the sealing cap.

4. (original) The device according to claim 1, wherein the shoulder has a level bearing surface of circular-ring shape.

5. (original) The device according to claim 1, wherein the sealing cap further includes two slots arranged orthogonal to the second channel, the slots extending from the front end of the sealing cap.

6. (original) The device according to claim 1, further comprising bone fixation means having a central axis, a front segment, and an axially adjoining rear segment, wherein the rear segment has a cylindrical form for engaging the shoulder, and the front segment extends through the lower end of the connection element for engaging a bone.

7. (original) The device according to claim 6, wherein the bone fixation means is a pedicle screw with a screw shaft having an external thread and a screw head at an end thereof.

8. (new) The device according to claim 1, wherein the tensioning means comprises a set screw.

9. (new) The device according to claim 1, wherein the securing means comprises a pin, and the connection element has a hole extending into the connection element from the cavity and transverse to the central axis, the pin sized and configured to be pressed into the hole.

10. (new) The device according to claim 1, wherein the securing means comprises a snap ring sized and configured to be received within a corresponding groove formed on the bone fixation means.